



IEEE CBMS 2017
30th IEEE International Symposium
on Computer-Based Medical Systems

PROVISIONAL PROGRAM

Thursday 22/06/17			
	Amphitheater I	Amphitheater II	Foyer
14:00-15:30	GT1 Data Analysis and Knowledge Discovery	ST5 - Empowering Patients with Cancer through Connected Health ST7 - MultiModal Interfaces for Natural Human Computer Interaction: Theory and Applications	Exhibition
15:30 - 16:00	Coffe break		Exhibition
16:00 - 17:15	GT2 Decision Support Systems and Methods	ST9 - Cloud Security and Data Privacy by Design	
17:15-17:30	Official Opening		
17:30-18:15	Keynote NABIL ZARY		
18:15-19:00	Keynote TONY SOLOMONIDES		
19:00-20:30	Reception		Exhibition
20:30	Social Event		

Friday 23/06/17			
	Amphitheater I	Amphitheater II	Foyer
9:00-10:30	GT3 Decision Support and Recommendation Systems	Medical Curriculum Innovations: From theory to practice	Exhibition
10:30-11:00	Coffe break		Exhibition & Posters I
11:00-12:30	ST1 - Ambient Assisted Living based on IoT Technologies	Medical Curriculum Innovations: From theory to practice	
12:30-13:15	Keynote NIKOS CHRISOCHOIDES		
13:15-14:00	Lunch		Exhibition & Posters I
14:00-15:30	GT4 Technology Enhanced Medical Education and Simulation	GT5 Biomedical Signal	
15:30-16:15	Keynote VANGELIS KARKALETSIS		
16:15-16:45	Coffe break		Exhibition & Posters I
16:45 -18:00	ST4 - Computer-aided and robotic endoscopy systems	GT6: eHealth studies	
18:00-18:45	Keynote DIMITRIS FOTIADIS		
20:00	Conference Dinner		

Saturday 24/06/17			
	Amphitheater I	Amphitheater II	Foyer
9:00-11:00	ST3 - Immersive Personalized Patient Engagement; Computer Based Medical Intervention Systems	ST2 - Social data and medical data analytics	UNCAP Workshop & Posters II
11:00-11:30	Coffe break		UNCAP Workshop & Posters II
11:30- 12:30	GT7 Medical Imaging I	GT8: Ask the Editors	
12:30-13:15	Keynote LUIS KUN		
13:15-14:00	Lunch		UNCAP Projects Exhibition & Posters II
14:00-14:45	Recorded Keynote from AIME Conf Kenneth J. (Ken) Barker		
14:45-15:45	GT9: Games, Robotics and smart technologies	GT10 Medical Imaging II	UNCAP Workshop & Posters II
15:45 - 16:15	Closing		

GT1: Data Analysis and Knowledge Discovery	GT2: Decision Support Systems and Methods	GT3: Decision Support and Recommendation Systems	GT4: Technology Enhanced Medical Education and Simulation	GT5: Biomedical Signal
Fabian Prasser, Johanna Eicher, Raffael Bild, Helmut Spengler and Klaus Kuhn. A Tool for Optimizing De-Identified Health Data for Use in Statistical Classification	Harshani Perera, Mohd Fairuz Shiratuddin, Kok Wai Wong and Kelly Fullarton. EEG Signal Analysis of Real-word Reading and Nonsense-word Reading between Adults with Dyslexia and without Dyslexia	Fernando García-García, Eleni Metaxa, Stergios Christodoulidis, Marios Anthimopoulos, Nikolaos Kontopodis, Martina Correa-Londoño, Thomas R. Wyss, Yannis Papaharilaou, Christos V. Ioannou, Hendrik von Tengg-Koblig and Stavroula Mougiakakou. Prognosis of abdominal aortic aneurysms: A machine learning-enabled approach merging clinical, morphometric, biomechanical and texture information	Sudanthi Wijewickrema, Bridget Copson, Yun Zhou, Xingjun Ma, Robert Briggs, James Bailey, Gregor Kennedy and Stephen O'Leary. Design and Evaluation of a Virtual Reality Simulation Module for Training Advanced Temporal Bone Surgery	Vasiliki Zilidou, Christos Frantzidis, Ana Vivas, Maria Karagianni and Panagiotis Bamidis. Towards multi-parametric hub scoring of functional cortical brain networks: An electroencephalographic (EEG) study across lifespan
Natália Franco, Augusto Lima, Thiago Lima, Edson Silva, Rinaldo Lima and Robson Fidalgo. A Recall Analysis of Core Word Lists over Children's Utterances for Augmentative and Alternative Communication	Katerina Giannakaki, Giorgos Giannakakis, Christina Farmaki and Vangelis Sakkalis. Emotional state recognition using advanced machine learning techniques on EEG data	Alexander Zogkas, Sotiria Gilou, Inessa Kirsanidou, Chrysovalantis Korfitis, Christina Kemanetzi, Elizabeth Lazaridou, Panagiotis Bamidis and Alexander Astaras. A non-invasive medical decision support prototype system for Dermatology based on electrical impedance spectroscopy (DermaSense)	Hirenkumar Nakawala, Elena De Momi, Laura Erica Pescatori, Anna Morelli and Giancarlo Ferrigno. Inductive learning of the surgical workflow model through video annotations	Kostas M. Tsiouris, Vasileios Pezoulas, Dimitrios D. Koutsouris, Dimitrios I. Fotiadis and Michalis Zervakis. Discrimination of Preictal and Interictal Brain States from Long-Term EEG Data
Steve Counsell, Stephen Swift and Allan Tucker. A Deconstructed Replication of Time of Test Using the AGIS Metric	Evanthia Tripoliti, Theofilos Papadopoulos, Georgia Karanasiou, Fanis Kalatzis, Yorgos Goletsis, Aris Bechlioulis, Silivia Ghimenti, Tommaso Lomonaco, Francesca Bellagambi, Roger Fuoco, Mario Marzilli, Maria Chiara Scali, Katerina Naka, Abdelhamid Errachid and Dimitrios Fotiadis. Estimation of heart failure patients medication adherence through the utilization of saliva and breath biomarkers and data mining techniques	Juliano Gaspar, Juliana Barra and Zilma Reis. Having a decisional support system from Robson's Classification inside a hospital maternity is enough to reduce cesarean section rates?	Sina Jalali, Eleni Stroulia, Sarah Foster, Sarah Forgie, Amit Persad and Diya Shi. LiveBook: Competence Assessment with Virtual-Patient Simulations	Negar Ahmadi, Yulong Pei and Mykola Pechenizkiy. Detection of Alcoholism based on EEG Signals and Functional Brain Network Features Extraction
George Lambrou, Ioanna Barbounaki, Fotini Tzortzotou-Stathopoulou, Ourania Petropoulou, Panagiotis Katrakazas, Dimitra Iliopoulou and Dimitrios Koutsouris. Computational Analysis of BRCA1 Mutations in Pediatric Patients with Malignancies and Their Mothers	Erdem Corapcioglu and Hasan Ogul. Exploiting active microRNA interactions for diagnosis from expression profiling experiments	Soudabeh Khodambashi, Florentin Moser, Jon Atle Gulla and Pekka Abrahamsson. Design and Development of a Mobile Decision Support System: Guiding Clinicians Regarding Law in the Practice of Psychiatry in Emergency Department	Inga Hege, Andrzej A Kononowicz, Michal Nowakowski and Martin Adler. Implementation of process-oriented feedback in a clinical reasoning tool for virtual patients	Alexandros Tzallas, Nikolaos Giannakeas, Konstantinos Zoulis, Markos Tsipouras, Euripidis Glavas, Katerina Tzimourta, Loukas G. Astrakas and Spiros Konitsiotis. EEG Classification and Short-Term Epilepsy Prognosis using Brain Computer Interface Software
Athanasios Lagopoulos, Anestis Fachantidis and Grigorios Tsoumakas. Multi-Label Modality Classification for Figures in Biomedical Literature	Agnese Marchesi, Alessandro Bria, Claudio Marrocco, Mario Molinara, Francesco Tortorella, Jan-Jurre Mordang and Nico Karssemeijer. The Effect of Mammogram Preprocessing on Microcalcification Detection with Convolutional Neural Networks	Daniel Sonntag and Hans-Jürgen Profitlich. Integrated decision support by combining textual information extraction, faceted search and information visualisation	Sema Candemir, Sameer Antani, Zhiyun Xue and George Thoma. Novel Method for Storyboarding Biomedical Videos for Medical Informatics	Mina Meshriky, Seif Eldawlatly and Gamal Aly. An Intermixed Color Paradigm for P300 Spellers: A Comparison with Gray-scale Spellers
Retno Vinarti and Lucy Hederman. Personalization of Infectious Disease Risk Prediction: A Dynamic Bayesian Network		Ivan Stojkovic and Zoran Obradovic. Predicting Sepsis Biomarker Progression under Therapy	Stathis Th. Konstantinidis, Aaron Fecowycz, Kirstie Coolin, Heather Wharrad, George Konstantinidis and Panagiotis Bamidis. A Proposed Learner Activity Taxonomy and a Framework for Analysing Learner Engagement versus Performance using Big Educational Data	Prasanth Ganesan, Kristina Shillieto, Elizabeth Cherry, Arkady Pertsov and Behnaz Ghoraani. Simulation of Spiral Waves and Point Sources in Atrial Fibrillation with Application to Rotor Localization

GT6: eHealth studies	GT7: Medical Imaging I	GT8: Ask the Editor	GT9: Games, Robotics and smart technologies	GT10: Medical Imaging II
Mandana Omidbakhsh and Olga Ormandjieva. Comparing the Quality of Numeracy Assessment Methods in Healthcare	Benedetta Savelli, Alessandro Bria, Claudio Marrocco, Mario Molinara, Francesco Tortorella, Adrian Galdran and Aurélio Campilho. Illumination correction by dehazing for retinal vessel segmentation	ASK THE EDITOR	S. B. Dias, Evdokimos Konstantinidis, J. A. Diniz, Panagiotis Bamidis, V Charisis, S Hadjidimitriou, M. Stadtschnitzer, P. Fagerberg, I Ioakeimidis, K Dimitropoulos, N Grammalidis and Leontios Hadjileontiadis. On supporting Parkinson's Disease patients: The i-PROGNOSIS Personalized Game Suite design approach	Harshita Sharma, Norman Zerbe, Christine Böger, Stephan Wienert, Olaf Hellwich and Peter Hufnagl. A comparative study of cell nuclei attributed relational graphs for knowledge description and categorization in histopathological gastric cancer whole slide images
Chunhui Guo, Zhicheng Fu, Shangping Ren, Yu Jiang, Maryam Rahmanieris and Lui Sha. Pattern-Based Statechart Modeling Approach for Medical Best Practice Guidelines - A Case Study	Mirela T. Cazzolato, Lucas C. Scabora, Alceu F. Costa, Marcos R. Nesso-Jr, Luis F. Milano-Oliveira, Daniel S. Kaster, Caetano Traina-Jr and Agma J. M. Traina. BREATH: Heat Maps Assisting the Detection of Abnormal Lung Regions in CT Scans		Renan Vinicius Aranha, Leonardo Souza Silva, Marcos Lordello Chaim and Fátima De Lourdes Dos Santos Nunes. Using Affective Computing to automatically adapt serious games for rehabilitation	Panagiota Tsompou, Panagiotis Siogkas, Antonis Sakellarios, Pedro Lemos, Lampros Michalis and Dimitrios Fotiadis. Non-Invasive Assessment of Coronary Stenoses and Comparison to Invasive Techniques: a proof-of-concept study
Bridget Kane. Trust, Ethics and Access: Challenges in studying the work of Multidisciplinary Medical Teams	Alexander Naitzat, Emil Saucan and Yehoshua Zeevi. A differential geometry approach for change detection in medical imaging.		Efthymoulos Kyriacou, Andrew Nicolaides, Alexandra Constantinou, Maura Griffin, Christos Loizou, Marios S. Pattichis, Hamed Nasrabadi, Constantinos S. Pattichis. Carotid Bifurcation Plaque Stability Estimation based on Motion Analysis	Dimosthenis C. Tsouros, Panagiotis N. Smyrlis, Nikolaos Giannakeas, Alexandros T. Tzallas, Pinelopi Manousou, Dimitrios G. Tsalikakis and Markos G. Tsiouras. Automated collagen proportional area extraction in liver biopsy images using a novel classification via clustering algorithm
Alkinoos Athanasiou, George Arfaras, Ioannis Xygonakis, Panagiotis Kartsidis, Niki Pandria, Kyriaki Rafailia Kavazidi, Alexander Astaras, Nicolas Foroglou, Konstantinos Polyzoidis and Panagiotis Bamidis. Commercial BCI Control And Functional Brain Networks in Spinal Cord Injury: A Proof-of-Concept.	Christos P Loizou, Christos Papacharalambous, Giorgos Samaras, Efthymoulos Kyriakou, Takis Kasparis, Marios Pantziaris, Eleni Eracleous and Constandinos S Pattichis. Brain Image and Lesions Registration and 3D Reconstruction in Dicom MRI Images		Andreas Menychtas, Charalampos Doukas, Panayiotis Tsanakas and Ilias Maglogiannis. A Versatile Architecture for Building IoT Quantified-Self Applications	Rosalia Dacosta-Aguayo, Christian Stephan-Otto, Tibor Auer, Ic Clemente, Antoni Dávalos, Núria Bargalló, Maria Mataró and Manousos A. Klados. Predicting Cognitive Recovery of Stroke Patients from the Structural MRI Connectome using a Naïve Bayesian Tree Classifier

ST1	ST2	ST3
Nikolaos Katsivelis, Athanasios Anastasiou, Ourania Petropoulou, George Lambrou, Kostas Giokas and Dimitris Koutsouris. Applied technologies and Smart Home applications in the health sector	Uli Niemann, Myra Spiliopoulou, Bernhard Preim, Till Ittermann and Henry Völzke. Combining Subgroup Discovery and Clustering to Identify Diverse Subpopulations in Cohort Study Data	Guido Giunti, Diego Giunta, Santiago Hors-Fraile, Minna Isomursu and Diana Karosevičiūtė. Detecting Gamification in Breast Cancer Apps: an automatic methodology for screening purposes
Giuseppe Palestra, Mohamed Rebiai, Estelle Corutial, Kostas Giokas and Dimitrios Koutsouris. A Fall Prevention System for the Elderly: Preliminary Results	Natalia Reguera, Laia Subirats and Manuel Armayones. Mining Facebook data of people with rare diseases	Guido Giunti, Estefania Guisado-Fernandez and Brian Caulfield. Connected Health in Multiple Sclerosis: a mobile applications review
Parisa Mohebbi, Eleni Stroulia and Ioanis Nikolaidis. Indoor Localization: A Cost-Effectiveness vs. Accuracy Study	Zhijun Yin, Lijun Song and Bradley Malin. Reciprocity and Its Association with Treatment Adherence in an Online Breast Cancer Forum	Barbara Villarini, Hykoush Asaturyan, E. Louise Thomas, Rhys Mould and Jimmy D Bell. A Framework for Morphological Feature Extraction of Organs from MR Images for Detection and Classification of Abnormalities
Debora Cabral Nazario, Pedro J. Campos, Eduardo C. Inacio and Mario A. R. Dantas. Quality of Context Evaluating Approach in AAL Environment using IoT Technology	Pablo Ferri-Borredà, Carlos Sáez and Juan Miguel García-Gómez. Discovering data source stability patterns in biomedical repositories based on simplicial projections from probability distribution distances	Michael Aupetit, Luis Fernandez-Luque, Meghna Singh and Jaideep Srivastava. Visualization of Actigraphy Data and Biometrics for Qualitative Analysis and Recommendation: Experience from a Childhood Obesity Camp in Qatar
George Karagiannis, Konstantinos Panayiotou and Emmanouil Tsardoulis. Robotic applications towards an interactive alerting system for medical purposes	Daniela Ferreira-Santos and Pedro Pereira Rodrigues. Improving diagnosis in Obstructive Sleep Apnea with clinical data: a Bayesian network approach	Meghna Singh, Luis Fernandez-Luque and Jaideep Srivastava. The 360QS Toolkit for Sleep and Physical Activity Analysis based on Wearables
Penelope Ioannidou, Panagiotis Katrakazas, Stefanos Kollias and Dimitrios Koutsouris. HEAR?INFO: A modern mobile-web platform addressed to hard-of-hearing elderly individuals	Ernestina Menasalvas, Consuelo Gonzalo, Juan Manuel Tuñas, Alejandro Rodríguez González, Mariano Provencio, Cristina Gonzalez de Pedro, Marta Mendez, Olga Zaretskaia, Juan Luis Cruz, Jesús Rey and Consuelo Parejo. OncoCall: analyzing the outcomes of the oncology telephone patient assistance	Daphne Economou, Miriam Dwek, Claire Roberston, Elliott Bradley, Thanos Kounenis, Mohammad Ramezani, Nathan Bell and Tayebeh Azimi. PhytoCloud: A gamified a mobile-web application to modulate and physical activity in women with breast cancer
	Nouf Albarakati and Zoran Obradovic. Disease-Based Clustering of Hospital Admission: Disease Network of Hospital Networks Approach	Panagiotis Antoniou, Octavio Rivera-Romero, Maria Karagianni and Panagiotis Bamidis. Towards evidence based m-health application design in cancer patient healthy lifestyle interventions.
	Rüdiger Pryss, Thomas Probst, Winfried Schlee, Johannes Schobel, Berthold Langguth, Patrick Neff, Myra Spiliopoulou and Manfred Reichert. Mobile Crowdsensing for the Juxtaposition of Realtime Assessments and Retrospective Reporting for Neuropsychiatric Symptoms	Panagiotis Antoniou, Vasiliki Zilidou, Anastasios Siountas and Panagiotis Bamidis. Virtual scenarios for stealth assessment of the elderly; Perceptions and acceptance of technology-based health and wellness interventions.

ST4	ST5	ST7	ST9
Alexandros Rikos, Fons van der Sommen, Anne-Fré Swager, Svitlana Zinger, Wouter Curvers, Erik Schoon, Jacques Bergman and Peter de With. Improved Barrett's Cancer Detection in Volumetric Laser Endomicroscopy scans using Multiple-Frame Voting	Haridimos Kondylakis, Anca Bucur, Feng Dong, Chiara Renzi, Andrea Manfrinati, Norbert Graf, Stefan Hoffman, Lefteris Koumakis, Gabriella Pravettoni, Kostas Marias, Manolis Tsiknakis and Stephan Kiefer. iManageCancer:Empowering patients and strengthening self-management in cancer diseases	Fotis Kalaganis, Elisavet Chatzilari, Kostas Georgiadis, Spiros Nikolopoulos, Nikos Laskaris and Yiannis Kompatsiaris. An Error Aware SSVEP-based BCI	Matthias Gabel and Jeremias Mechler. Secure Database Outsourcing to the Cloud: Side-Channels, Counter-Measures and Trusted Execution with SGX
Chuanhai Zhang, Wallapak Tavanapong, Johnny Wong, Piet C. de Groen and Junghwan Oh. Real-Time Instrument Scene Detection in Screening GI Endoscopic Procedures	Francisco Monteiro-Guerra, Octavio Rivera-Romero, Vasiliki Mylonopoulou, Gabriel R. Signorelli, Francisco Zambrana and Luis Fernandez-Luque. The Design of a Mobile App for Promotion of Physical Activity and Self-Management in Prostate Cancer Survivors: Personas, Feature Ideation and Low-Fidelity Prototyping	Korok Sengupta, Jun Sun, Raphael Menges, Chandan Kumar and Steffen Staab. Analyzing the Impact of Cognitive Load in Evaluating Gaze-based Typing	Simeon Veloudis, Iraklis Paraskakis, Yiannis Verginadis, Ioannis Patiniotakis and Gregoris Mentzas. Ontological Templates for Regulating Access to Sensitive Medical Data in the Cloud
Ahmed Mohammed, Sule Yildirim, Marius Pedersen, Øistein Hovde and Faouzi Cheikh. Sparse coded handcrafted and deep features for colon capsule video summarization	Dominic O'Connor and Brian Caulfield. The application of neuromuscular electrical stimulation (NMES) technologies in cancer care	Chandan Kumar, Raphael Menges and Steffen Staab. Assessing the Usability of a Gaze-Adapted Interface with Conventional Eye-based Emulation	Antonis Michalas and Noam Weingarten. HealthShare: Using Attribute-Based Encryption for Secure Data Sharing Between Multiple Clouds
George Dimas, Dimitris Iakovidis, Alexandros Karargyris, Gastone Ciuti and Anastasios Koulaouzidis. Visual Localization of Wireless Capsule Endoscopes Aided by Artificial Neural Networks			Gunther Schiefer, Murat Citak, Andreas Schoknecht, Matthias Gabel and Jeremias Mechler. Security in a Distributed Key Management Approach
Bashir Dodo, Yongmin Li and Xiaohui Liu. Retinal OCT Image Segmentation Using Fuzzy Histogram Hyperbolization and Continuous Max-Flow			

Poster 1	Poster 2
Xingjun Ma, Sudanthi Wijewickrema, Yun Zhou, Bridget Copson, James Bailey, Gregor Kennedy and Stephen O'Leary. Simulation for Training Cochlear Implant Electrode Insertion	Marc Schickler, Rüdiger Pryss, Johannes Schobel, Winfried Schlee, Thomas Probst and Manfred Reichert. Towards Flexible Remote Therapeutic Interventions
Guilherme Camargo, Rafael Staiger Bressan, Pedro Henrique Bugatti and Priscila Tiemi Maeda Saito. Towards an effective and efficient learning for biomedical data classification	Gregory Kalogiannis, Nikolaos Karampelas and George Hassapis. A reworked SOBI algorithm based on SCHUR Decomposition for EEG data processing
Jan Kubicek, Martin Augustynek and Marek Penhaker. Dynamical Modelling of Pulmonary Compartment Response Using Differential Approach	George Manis and Roberto Sassi. Relation between fetal HRV and value of umbilical cord artery pH in labor, a study with entropy measures
Isabel Figueiredo, Carlos Leal, Luis Pinto, Pedro Figueiredo and Richard Tsai. Dissimilarity Measure of Consecutive Frames in Wireless Capsule Endoscopy Videos: a way of searching for abnormalities	Vangelis Oikonomou, Kostas Georgiadis, Georgios Liaros, Spiros Nikolopoulos and Yiannis Kompatsiaris. A comparison study on EEG signal processing techniques using motor imagery EEG data
Katerina D. Tzamourta, Markos G. Tsipouras, Nikolaos Giannakeas, Loukas G. Astrakas, Spyridon Konitsiotis and Alexandros T. Tzallas. Wavelet based classification of epileptic seizures in EEG signals	Pedro González Alonso, Ruth Vilar and Francisco Lupiáñez Villanueva. Meeting technology and methodology into Health Big Data Analytics scenarios
Nikolaos Giannakeas, Markos Tsipouras, Alexandros Tzallas, Roberta Forlano, Maria Vavva, Evaggelos C. Karvounis, Maria Tsimplakidou and Pinelopi Manousou. Measuring Steatosis in Liver Biopsies using Machine Learning and Morphological Imaging	Paulo H. Oliveira, Lucas C. Scabora, Mirela T. Cazzolato, Willian D. Oliveira, Agra J. M. Traina and Caetano Traina Jr.. Efficiently Integrating Multiple Repositories of Medical Image Databases
Saturnino Luz. Longitudinal Monitoring and Detection of Alzheimer's Type Dementia from Spontaneous Speech Data	Stian Jessen, Jelena Mirkovic and Cornelia Ruland. User and Stakeholder Requirements of eHealth Support Tool Viewed In a Self-Determination Theory Lens
Yasmeen Abu-Kheil, Lakmal Seneviratne and Jorge Dias. A SIMULATION ENVIRONMENT FOR ACTIVE ENDOSCOPIC CAPSULES	Robin Jugas, Karel Sedlar, Helena Skutkova and Martin Vitek. Overlap detection for a genome assembly based on genomic signal processing
Takashi Okumura, Tomoko Kajiyama and Noboru Sonehara. Differential diagnosis listing as relevance feedback: An essential user interface for clinical decision support systems	Georgios Rassias, Christos Andrikos, Panayiotis Tsanakas and Ilias Maglogiannis. Versatile cloud collaboration services for device-transparent medical imaging teleconsultations
Thaína A. A. Tosta, Marcelo Z. Do Nascimento, Paulo R. Faria and Leandro A. Neves. Application of Evolutionary Algorithms on Unsupervised Segmentation of Lymphoma Histological Images	John Nikolaidis and Helias Ayfantes. Z-Box merging: Ultra-fast computation of Fractal Dimension and Lacunarity
Balazs Harangi, Andras Hajdu, Rudolf Lampe and Peter Torok. Recognizing ureter and uterine artery in endoscopic images using a convolutional neural network	Alex Bokov, Gail Olin, Angela B. Bos, Pamela Kittrell, Alfredo Tirado-Ramos and Carlyne Jackson. Using Prevalence Patterns to Discover Un-Mapped Flowsheet Data in an Electronic Health Record Data Warehouse
Johannes Schobel, Rüdiger Pryss, Marc Schickler and Manfred Reichert. Towards Patterns for Defining and Changing Data Collection Instruments in Mobile Healthcare Scenarios	Panagiotis Katrakazas, Marilena Tarousi, Kostas Giokas and Dimitrios Koutsouris. Analysis of Cervical cancer: an Evidence-based treatmentS Optimization (ACESO)
Christoph Beierle, Bettina Sader, Christian Eichhorn, Gabriele Kern-Isberner, Ralf Georg Meyer and Mathias Nietzke. On the Ontological Modelling of Co-Medication and Drug Interactions in Medical Cancer Therapy Regimens for a Clinical Decision Support System	Melinda Pap, Balazs Harangi and Andras Hajdu. Automatic pigment network classification using a combination of classic texture descriptors and CNN features
Marc Schickler, Rüdiger Pryss, Michael Stach, Johannes Schobel, Winfried Schlee, Thomas Probst, Berthold Langguth and Manfred Reichert. An IT Platform Enabling Remote Therapeutic Interventions	Giovana Gelatti, Andre de Carvalho and Pedro Pereira Rodrigues. Anomaly detection through temporal abstractions on intensive care data: position paper
Galina Portnova and Kseniya Gladun. Laugh and crying perception in patients with severe and moderate TBI using FFT analysis	Alexandre Savaris, Alexandre Augusto Gimenes Marquez Filho, Rodrigo Rodrigues Pires de Mello, Gabriela Bussolo Colonetti, Aldo von Wangenheim and Dirk Krechel. Integrating a PACS Network to a Statewide Telemedicine System - A case study of the Santa Catarina State Integrated Telemedicine and Telehealth System
Alexandros Roniotis and Manolis Tsiknakis. Detection and Management of Depression in Cancer Patients using Augmented Reality Technologies, Multimodal Signal Processing and Persuasive Interfaces	Simon Kocbek and Tudor Groza. Extracting disease-phenotype relations from text with disease-phenotype concept recognisers and association rule mining
Ioanna Iliopoulou, Iordanis Mourouzis, George Lambrou, Constantinos Pantos, Paschalis Bizopoulos, Dimitra Iliopoulou and Dimitrios Koutsouris. Neural Networks Modelling after Myocardial Infarction in Rats	Laura Manuel, Alfredo Tirado-Ramos and Manuel Castañón Puga. An Object Oriented Approach to Model Reusability
Filipe Cordeiro and Jéssica Barbosa Diniz. Automatic Segmentation of Melanoma in Dermoscopy Images using Fuzzy Numbers	Raphael Oliveira, Joana Ferreira, Diogo Libanio, Claudia Camila Dias and Pedro Pereira Rodrigues. Bringing Bayesian networks to bedside: a web-based framework
Filipe Cordeiro, Kallebe F. P. Bezerra and Wellington Pinheiro Dos Santos. Random Walker with Fuzzy Initialization Applied to Segment Masses in Mammography Images	Zhicheng Fu, Chunhui Guo, Shangping Ren, Yu Jiang, Yi-Zong Ou and Lui Sha. Modeling and Integrating Human Interaction Assumptions in Medical Cyber-Physical System Design
Christos Kannas and Constantinos Pattichis. Self-Adaptive Multi-Objective Evolutionary Algorithm for Molecular Design	S. Balaji, Meghana Bastwadkar and Carolyn Mcgregor. A Cloud based Big Data Based Online Health Analytics for Rural NICUs and PICUs in India: Opportunities and Challenges
Michael Zimoch, Rüdiger Pryss, Thomas Probst, Winfried Schlee and Manfred Reichert. Towards a Conceptual Model Fostering Process Comprehension in Healthcare	Jonathan Chung, Foad Taghdiri, Samantha Irwin, Namita Multani, Apameh Tarazi, Ahmed Ebraheem, Mozghan Khodadadi, Ruma Goswami, Richard Wennberg, Robin Green, David Mikulis, Karen Davis, Charles Tator, Carmela Tartaglia and Moshe Eizenman. Visual Scanning Behaviour during a visual search task: an objective indicator for white matter integrity in patients with post-concussion syndrome

Poster 1	Poster 2
Miro Schleicher, Till Ittermann, Uli Niemann, Henry Völzke and Myra Spiliopoulou. ICE: Interactive Classification Rule Exploration on Epidemiological Data	Elizângela De Souza Rebouças, Alan M. Braga, Róger Moura Sarmiento, Regis C. P. Marques and Pedro Pedrosa Rebouças Filho. Level set based on brain radiological densities for stroke segmentation in CT images
Alexander Prange, Danilo Schmidt and Daniel Sonntag. A digital pen-pased tool for instant digitisation and digitalisation of biopsy protocols	Raul Victor Medeiros Nobrega, Murillo Barata Rodrigues and Pedro Pedrosa Rebouças Filho. Segmentation and visualization of the lungs in three dimensions using 3D Region Growing and Visualization Toolkit in CT examinations of the chest
Parisis Gallos and John Mantas. Travelers' Perceptions about m-Health Technology	Theodora Sanida and Iraklis Varlamis. Application of affinity analysis techniques on diagnosis and prescription data
Khalid Eltayef, Yongmin Li and Xiaohui Liu. Detection of Melanoma in Dermoscopy Images Using Particle Swarm Optimization and Markov Random Field	Manousos A. Klados, Niki Pandria, Alkinoos Athanasiou and Panagiotis Bamidis. An Automatic EEG Based System For The Recognition of Math Anxiety
Fahad Moiz, Walter Leon-Salas, Reza Derakhshani and Yugyung Lee. A Low Bit Rate Wearable Motion Sensing Platform for Gesture Classification	Panteleimon Chriskos, Dimitra Kaitalidou, Georgios Karakasis, Christos Frantzidis, Polyxeni Gkivogkli, Panagiotis Bamidis and Chrysoula Kourtidou-Papadeli. Automatic Sleep Stage Classification Applying Machine Learning Algorithms on EEG Recordings
Vassilia Costarides, Athanasios Anastasiou, Ioannis Kouris and Dionysios-Dimitrios Koutsouris. An innovative gaming approach to prevent anxiety disorders and promote youth resilience	George Arfaras, Alkinoos Athanasiou, Niki Pandria, Kyriaki Rafailia Kavazidi, Panagiotis Kartsidis, Alexander Astaras and Panagiotis Bamidis. Visual Versus Kinesthetic Motor Imagery For BCI Control Of Robotic Arms (Mercury 2.0)
Masood Masoodian and Saturnino Luz. Ecoepidemiological Simulation as a Serious Game Engine Module	Chun-Ju Chang, Sai-Wei Yang, Jen-Suh Chern and Tsui-Fen Yang. Visual Role in the Dynamic Postural Balance due to Aging – Assessment by using an Augmented Reality Purterbation System
Dario Guida and Artie Basukoski. WeightBit : an advancement in wearables technology	Ioanna Tepelena, Christos Frantzidis, Vasiliki Salvari, Leontios Hadjileontiadis and Panagiotis Bamidis. Are elderly less responsive to emotional stimuli? An EEG-based study across pleasant, unpleasant and neutral Greek words
Emilio Garcia, Renato Remoza and Cesar Beltran. Automatic Lymphocyte Detection on Immunohistochemistry Images of Gastric Cancer using Deep Learning	Mazen Yassin and Ashraf Mahroos. Visual Rehabilitation Biofeedback using EMG Signal Based on Android Platform
Leila Yousefi, Lucia Saachi, Riccardo Bellazzi, Luca Chiovato and Allan Tucker. Predicting Comorbidities using Resampling and Dynamic Bayesian Networks with Latent Variables	Styliani Siouli, Ioanna Dratsiou, Panagiotis Kartsidis and Panagiotis Bamidis. Evaluating the AffectLecture mobile app within an elementary school class teaching process
Sonja Zillner and Daniel Sonntag. Automatic extraction of breast cancer information from clinical reports	Niki Pandria, Dimitris Spachos, Alkinoos Athanasiou and Panagiotis Bamidis. Assessing Emotional Impact of Biofeedback and Neurofeedback Training in Smokers during a Smoking Cessation Project
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